

Add the following new claims 4-10:

4. An apparatus for chemically and mechanically planarizing a surface of a workpiece comprising:

a non-cellular lapping surface;

workpiece mounting means for mounting said workpiece to expose said workpiece surface to said lapping surface;

an abrasive slurry disposed between said workpiece surface and said lapping surface; and

means for relatively moving said lapping surface and said workpiece mounting means such that said workpiece surface is contacted and planarized by said lapping surface.

5. An apparatus as claimed in claim 4, wherein said lapping surface is made from a soft and pliable material that conforms to integrated circuit device layers formed on said workpiece surface and resists damage to said integrated circuit device layers.

6. An apparatus as claimed in claim 5, wherein said lapping surface is made from fused polyethylene, flexibilized epoxy or non-cellular urethane.

7. An apparatus as claimed in claim 4, wherein said abrasive slurry comprises:
about 5-20% by weight of a chemical agent having a particle size of about 10-200 nanometers and being selected from a group consisting of a hydroxide and potassium fluoride; and
a mechanical agent selected from a group consisting of colloidal silica, cerium oxide and alumina.

8. An apparatus as claimed in claim 7, wherein said abrasive slurry comprises about 11% by weight of said chemical agent and said particle size is about 30-80 nanometers.